
Model General Permit:

Specific Conditions And

Instructions For Use

Perchloroethylene Dry Cleaners:

40 CFR Part 63, Subpart M (Proposed) and
Control Technique Guideline for Control of Volatile Organic Emissions from
Perchloroethylene Dry Cleaning Systems, December 1978

Submitted To:

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By:

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May 18, 1993

**MODEL GENERAL PERMIT:
SPECIFIC CONDITIONS**

PERCHLOROETHYLENE DRY CLEANERS

40 CFR Part 63, Subpart M (Proposed)

and

Control Technique Guideline for "Control of Volatile Organic Emissions
from Perchloroethylene Dry Cleaning Systems", December 1978

SECTION I: APPLICABILITY CRITERIA

- A. The provisions of this permit apply to dry cleaning dryers, dry-to-dry machines, transfer machine systems, filters, muck cookers, and stills at dry cleaning facilities that use perchloroethylene as a solvent.
- (1) The permittee shall comply with **Section II** of this permit for each dry-to-dry machine, except
 - (a) For each existing dry-to-dry machine that consumes 830 liters per year (220 gallons per year) or less of perchloroethylene shall only be required to keep and maintain for a period of 5 years records of the amount of perchloroethylene consumed per year.
 - (2) The permittee shall comply with **Section III.1** of this permit for each existing transfer machine with a potential to emit of less than 10 tons per year and controlled by a refrigerated condenser, except
 - (a) For each existing transfer machine system that consumes 1,100 liters per year (300 gallons per year) or less of perchloroethylene shall only be required to keep and maintain for a period of 5 years the records of the amount of perchloroethylene consumed per year.
 - (3) The permittee shall comply with **Section III.2** of this permit for each new, reconstructed, or uncontrolled transfer machine, and existing refrigerated condenser-controlled transfer machine with a potential to emit of 10 tons per year or more.
- B. The permittee of a stationary source affected by this subpart shall comply with the provisions of 40 CFR Part 63, Subpart A.

SECTION II: COMPLIANCE REQUIREMENTS FOR DRY-TO-DRY MACHINES

A. OPERATING REQUIREMENTS

- (1) The permittee shall vent the entire exhaust through a carbon adsorber, refrigerated condenser, or equally effective control device or circulate the entire exhaust through such a control device for a ventless machine. A permittee using an equally effective control device shall follow the procedures outlined in II.A(11) of this permit.
 - (a) The maximum organic solvent concentration in the vent from the dryer control device shall not exceed [100] ppm before dilution
- (2) If a carbon adsorber is used to achieve compliance with this section, the permittee shall operate it to meet the following requirements:
 - (a) Desorption shall be performed periodically, and no less frequently than each time the machine cleans 3 kilograms of articles per kilogram of activated carbon, based on dry-to-dry machine rated capacity;
 - (b) Desorption shall be performed with a minimum steam pressure of 170 kilopascals;
 - (c) A rated air flow capacity at least equal to the unrestricted exhaust rate of the dry cleaning machine shall be achieved and a minimum air flow capacity shall be maintained at 0.3 cubic meters per second; and
 - (d) No bypass to the atmosphere shall be permitted during desorption.
- (3) If a refrigerated condenser is used to achieve compliance with this section, the permittee shall vent no exhaust gases to the atmosphere or circulate exhaust gases through a ventless machine until the air-vapor stream temperature on the outlet side of the refrigerated condenser is less than or equal to 4 °C (40 °F).
- (4) For cartridge filters subject to the provisions of this permit, the permittee shall drain all of used cartridge filters in their housing, or other sealed container, for a minimum of 24 hours, or have been dried in an enclosure vented to the control device, prior to disposal of the used cartridge filter
- (5) The permittee shall store all perchloroethylene and wastes that contain perchloroethylene in tightly sealed containers which are impervious to the solvent and chemical reaction of the perchloroethylene.

- (6) The permittee shall minimize the time that the door of the dry cleaning machine remains open.
- (7) The permittee shall clean lint traps frequently and place this perchloroethylene-laden lint in a tightly sealed container as described in II.A(5) of this section.
- (8) The permittee shall allow no liquid leakage of organic solvent from the system.
- (9) The permittee shall ensure that gaseous leakage does not exceed [] ppm.
- (10) The permittee shall meet the following requirements which apply to all filter and distillation wastes:
 - (a) Residue from any diatomaceous earth filter shall be cooked or treated so that wastes shall not contain more the [25] kg of solvent per 100 kg of wet waste material.
 - (b) The residue from a solvent shall not contain more than [60] kg of solvent per 100 kg of wet waste material.
 - (c) The permittee may use an equivalent filtration or distillation system provided the permittee can demonstrate that the equivalent system reduces waste losses below 1 kg solvent per 100 kg clothes cleaned
- (11) Equivalent equipment and procedures.
 - (a) [Insert appropriate requirements or conditions.]
 - (b) Equivalent equipment or procedures must attain 95 percent control of perchloroethylene emissions.

B. TESTING AND MONITORING

- (1) The permittee shall make at least a weekly inspection of the following components for leaks either visually or using a portable halogenated-hydrocarbon detector:
 - (a) Hose connections, unions, couplings, and valves,
 - (b) Machine door gaskets and seatings;
 - (c) Filter head gasket and seating;
 - (d) Pumps,

- (e) Solvent base tanks and solvent and waste storage containers;
 - (f) Water separators;
 - (g) Filter sludge recovery;
 - (h) Distillation units;
 - (i) Divertor valves;
 - (j) Saturated lint from the lint basket; and
 - (k) Cartridge filters.
- (2) The permittee shall inspect the following components at least [] for vapor leaks either visually or using []:
- (a) Deodorizing and aeration valves on dryers;
 - (b) Air and exhaust ductwork; and
 - (c) lint screens and bags, fan blades, and condensers for clogging or caking with lint.
- (3) The permittee shall determine the dryer exhaust concentration by []
- (4) The permittee shall determine the amount of solvent in earth filter and distillation wastes by utilizing the test method described by the American National Standards Institute in the paper, "Standard Method of Test for Dilution of Gasoline-Engine Crankcase Oils "
- (5) The permittee shall repair perceptible vapor or liquid perchloroethylene leaks immediately after detecting such a leak. If repair parts are necessary, a purchase order for those parts shall be initiated within 3 working days of detecting such a leak. Such repair parts shall be installed within a reasonable period of time after receipt.

C. RECORDKEEPING REQUIREMENTS

- (1) The permittee shall keep and maintain for a period of 5 years records of the following:
 - (a) The amount of perchloroethylene consumed per year;
 - (b) The result of weekly inspections conducted under II.B(1), and records of the dates of repair or purchase orders for repair parts to demonstrate compliance with II.B(2) of this permit. The record or log of weekly inspections must be posted in an area that is accessible or visible to workers in the plant and to enforcement officials; and
 - (c) The frequency and period of desorption to show compliance with II A(2)(a).

D. REPORTING REQUIREMENTS

- (1) For the purposes of this permit, if any of the information required by this permit is required to be submitted to another Agency of State, then the dry cleaning permittee may submit a copy of this information.

SECTION III: COMPLIANCE REQUIREMENTS FOR TRANSFER MACHINES

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The following provisions apply only to existing transfer machines with a potential to emit of less than 10 tons per year and controlled by refrigerated condensers.

A. OPERATING REQUIREMENTS

- (1) The permittee shall meet the requirements of II.A(4)-(11) above.
- (2) The permittee shall vent the entire exhaust through a refrigerated condenser or equally effective control device.
- (3) Equivalent equipment and procedures.
 - (a) [Insert appropriate requirements or conditions.]
 - (b) Equivalent equipment or procedures must attain 85 percent control of perchloroethylene emissions.

B. TESTING AND MONITORING

- (1) The permittee shall meet the requirement of II.B above

C. RECORDKEEPING REQUIREMENTS

- (1) The permittee shall meet the requirements of II.C(1)(a)-(b) above

D. REPORTING REQUIREMENTS

- (1) The permittee shall meet the requirements of II D above.

The following provisions apply to new, reconstructed, or uncontrolled transfer machines, and existing refrigerated condenser controlled transfer machines with a potential to emit of 10 tons per year or more:

A OPERATING REQUIREMENTS

- (1) The permittee shall meet the requirements of II.A(2)-(3) and II.A(5)-(12) above.
- (2). The permittee shall vent the entire exhaust through a carbon adsorber or equally effective control device.

B. TESTING AND MONITORING

- (1) The permittee shall meet the requirement of II.B above.

C RECORDKEEPING REQUIREMENTS

- (1) The permittee shall meet the requirements of II.C above.

D. REPORTING REQUIREMENTS

- (1) The permittee shall meet the requirements of II.D above.
- (2) For each existing transfer machine using a refrigerated condenser that consumes 7,600 liters per year (2,000 gallons per year) or greater of perchloroethylene, the permittee shall submit to the Administrator a report stating that the source is in compliance with the provisions of III.2(A)(2) above. The statement of compliance shall be sent by registered letter on the 30th day following compliance.

**MODEL GENERAL PERMIT:
INSTRUCTIONS FOR USE**

PERCHLOROETHYLENE DRY CLEANERS

40 CFR Part 63, Subpart M (Proposed)

and

**Control Technique Guideline for "Control of Volatile Organic Emissions
from Perchloroethylene Dry Cleaning Systems", December 1978**

PREFACE TO INSTRUCTIONS

The general permit specific conditions apply to dry cleaning dryers, dry-to-dry machines, transfer machine systems, filters, muck cookers, and stills at dry cleaning facilities that use perchloroethylene as a solvent

Unless otherwise identified in the instructions, all permit conditions are based on the proposed maximum achievable control technology (MACT) regulation 40 CFR Part 63. "National Emission Standards for Hazardous Air Pollutants for Source Categories Perchloroethylene Emissions from Dry Cleaning Facilities", published December 9, 1991

All conditions identified as based on control technology guidance (CTG) documentation are from the CTG "Control of Volatile Organic Emissions from Perchloroethylene Dry Cleaning Systems", published December 1978. These conditions are based on what EPA has determined to be out-dated information. EPA has proposed to remove perchloroethylene from the list of volatile organic compounds (VOCs) [FR Vol 57, pg 48490, October 26, 1992] If this proposal is adopted (scheduled for Summer, 1993), the CTG will be revoked, and the terms and conditions of this permit that are based on the CTG will not be federally enforceable.

The following sources are exempt from the requirements of **IIA(1)** or **III.2A(2)**, which are based on CTG documentation:

- (1) Each plant where an adsorber cannot be accommodated because of inadequate space;
- (2) Each plant where no or insufficient steam capacity is available to desorb adsorbers;
- (3) Each plant that demonstrates other justifiable hardships.

The following sources are exempt from the provisions of 40 CFR Part 63, Subpart M, except for the recordkeeping requirements of §63.325 (a)(1) and (d).

- (1) Each existing dry-to-dry machine that consumes 830 liters per year (220 gallons per year) or less of perchloroethylene, and
- (2) Each existing transfer machine system that consumes 1,100 liters per year (300 gallons per year) or less of perchloroethylene.

The permittee of stationary sources affected by this permit shall comply with the provisions of 40 CFR 63 Subpart A.

As defined in §63.322(l), for purposes of §63.9(b)(2)(vi), a major source is a dry-to-dry machine consuming 11,700 liters per year (3,100 gallons per year) perchloroethylene or greater, or a transfer machine consuming 7,600 liters per year (2,000 gallons per year) perchloroethylene or greater. An area source is a dry-to-dry machine consuming less than 11,700 liters per year (3,100 gallons per year) perchloroethylene or a transfer machine consuming less than 7,600 liters per year (2,000 gallons per year) perchloroethylene.

Compliance schedule (from §63.322(e)):

- (1) New sources for which construction or reconstruction commences after [date of publication of Final rule] shall achieve compliance upon startup.
- (2) Each existing dry-to-dry or transfer machine with a design capacity larger than 22.7 kilograms (50 pounds) shall achieve compliance within 18 months of [date of publication of Final rule].
- (3) Each existing dry-to-dry or transfer machine with a design capacity that is 22.7 kilograms (50 pounds) or smaller shall achieve compliance within 36 months of [date of publication of Final rule].

In delegating implementation and enforcement authority to a state under Section 112(d) of the Act, the authorities contained in §63.323 (Equivalent equipment and procedures) shall be retained by the Administrator and not transferred to a State.

INSTRUCTIONS

In the sections that follow, information is presented on regulatory requirements under 40 CFR 63, Subpart M and the CTG identified in the **Preface to Instructions**. Typically, these sections explain the basis for each of the conditions in the general permit specific conditions document, and provide references that the permitting agency may use for additional clarifications or details. To facilitate using these instructions, each section and subsection below corresponds to the sections and subsections in the permit document

I. This section identifies the applicability criteria for general permits for perchloroethylene dry cleaners.

II. This section covers provisions that apply to all dry-to-dry machines

A. OPERATING REQUIREMENTS

- (1) This section covers methods to vent exhaust, as required by §63.322(a).
 - (a) Specific organic solvent concentration identified in the CTG.

- (2) Covers operation requirements required by §63.322(c) if a carbon adsorber is used to achieve compliance.
 - (a) Specific time requirement for desorption performance, as required by §63.222(c)(1).
 - (b) Specific pressure requirement for desorption performance, as required by §63.222(c)(2).
 - (c) Specific air flow capacity requirement, as required by §63.222(c)(3).
 - (d) Specific requirement for control during desorption, as required by §63.222(c)(4).
- (3) This section covers venting requirements for machines controlled by a refrigerated condenser. For the purpose of measuring the temperature of the perchloroethylene vapors, a thermometer shall be installed on the outlet side of the refrigerated condenser system for both vented and no-vent machines. This section is based on §63.322(d)
- (4) Specific condition for cartridge filters subject to the provisions of the permit; required by §63.222(f)
- (5) Specific condition covering the storage of all perchloroethylene and wastes that contain perchloroethylene. This condition is based on §63.222(i).
- (6) This condition, as required by §63.222(j), minimizes the time the door of the dry cleaning machine remains open.
- (7) Specific condition covering cleaning of lint traps, required by §63.322(k)
- (8) Specific liquid leakage requirement identified in the CTG
- (9) Specific gaseous leakage amount limit identified in the CTG.
- (10) Specific requirements identified in the CTG for all filter and distillation wastes
 - (a) Specific requirement for diatomaceous earth filter residue.
 - (b) Specific requirement for solvent residue concentration limit.
 - (c) Specific requirement for allowable use of equivalent filtration or distillation system.

- (11) The regulations allow an owner or operator to use approved equivalent and procedures to control perchloroethylene emissions. This section covers requirements, as identified in §63.323, necessary for use of equivalent equipment and procedures instead of a carbon adsorber or refrigerated condenser:

The permittee may submit a written application requesting approval from the Agency for the use of equipment or procedures that can be demonstrated to be equivalent in terms of reducing perchloroethylene emissions to the atmosphere to those prescribed for compliance within a specified paragraph of this permit. The application shall contain the following.

- (i) A complete description of the testing procedure;
- (ii) The date, time, and location of the test; and
- (iii) A description of the results.

Upon written application from any person, the Administrator may approve the use of equipment or procedures that have been demonstrated to his satisfaction to be equivalent in terms of reducing perchloroethylene emissions to the atmosphere, to those prescribed for compliance within a specified paragraph of this subpart.

The Administrator will make a preliminary determination of whether the application for equivalence is approvable and will publish notice of these findings in the **Federal Register**. After notice and opportunity for public hearing, the Administrator will publish the final determination in the **Federal Register**.

Authority to approve equivalent equipment and procedures is retained by the Administrator and not delegated to the states.

- (a) This provision was left blank for any appropriate requirements the Agency or the Administrator may wish to insert at the appropriate time.
- (b) Specific emission control requirement for equivalent equipment and procedures used in place of carbon adsorbers; based on §63.323(b).

B. TESTING AND MONITORING

- (1) This section identifies all equipment that must be inspected at least weekly according to the provisions of §63.322(g) and §63.324(a).

- (2) This section identifies all equipment that must be inspected for vapor leaks, based on CTG documentation.
- (3) Specific determination of dryer exhaust concentration method identified in the CTG.
- (4) Specific determination of solvent in earth filter and distillation wastes identified in the CTG.
- (5) This section covers repair requirements for leaks; required by §63.322(h).

C. RECORDKEEPING REQUIREMENTS

- (1) Covers information required to be maintained by perchloroethylene dry cleaning facilities. All subsections ((a)-(c)) apply to dry cleaning machines controlled by carbon adsorbers or equivalent; only subsections (a) and (b) apply to dry cleaning machines controlled by refrigerated condensers or equivalent. This section is required by §63.325(a).

D. REPORTING REQUIREMENTS

- (1) Specific condition as required by §63.325(f).

Initial reporting requirements:

(§63.325(b)) Each permittee of a dry cleaning facility subject to the requirements of this permit shall comply with the initial report requirements in 40 CFR Part 63, Subpart M, §63.9(b).

(§63.325(c)) Each permittee of a dry cleaning facility subject to the requirements of this permit shall submit an initial statement of compliance to show that the provisions of §63.322(e) are being met. The statement shall list the type of control device used to achieve initial compliance with §63.322 and other appropriate information as described under the provisions of §63.9(h). The statement of compliance status shall be sent by registered letter on the 30th day following the compliance dates given in §63.322(e) in the case of existing sources, or simultaneously with the initial notification required under §63.325(b) in the case of new or reconstructed sources.

(§63.325(d)) Each permittee demonstrating compliance with §63.320(b) or (c) shall perform the following:

- (a) Submit to the Administrator an initial report stating that the existing source is consuming no more than 830 liters per year (220 gallons per year) of perchloroethylene if it is a dry-to-dry machine and no more

than 1,100 liters per year (300 gallons per year) of perchloroethylene if it is a transfer machine, and is, therefore, exempt from the requirements of §63.322(a) or §63.322(b).

- (b) If during the year the existing source consumes more than 830 liters per year (200 gallons per year) perchloroethylene for a dry-to-dry machine or 1,100 liters per year (300 gallons per year) perchloroethylene for a transfer machine, then the source permittee shall comply with the requirements of §63.322(a) or §63.322(b) within 90 days. A compliance report shall be submitted to the Administrator within 90 days.

III. This section covers compliance requirements that apply to transfer machines

1 This subsection covers provisions that apply only to existing transfer machines with a potential to emit of less than 10 tons per year and controlled by refrigerated condensers.

A. OPERATING REQUIREMENTS

- (1) Same instructions as II.A(4)-(11) above.
- (2) Specific condition for control of exhaust from a machine subject to this chapter, required by §63.322(b)(2)
- (3) Specific emission control requirement for equivalent equipment and procedures used in place of refrigerated condensers; based on §63.323(b)

B. TESTING AND MONITORING

- (1) Same instructions as II.B above

C. RECORDKEEPING REQUIREMENTS

- (1) Same instructions as II.C above Source subject to §63.325(a)(1)-(2) only.

D. REPORTING REQUIREMENTS

- (1) Same instructions as II.D. above

This chapter covers provisions that apply new, reconstructed, or uncontrolled transfer machines, and existing refrigerated condenser-controlled transfer machines with a potential to emit of 10 tons per year or more.

A. OPERATING REQUIREMENTS

- (1) Same instructions as II.A(2)-(3) and II.A(5)-(12) above.
- (2) Specific condition for control of exhaust from a machine subject to this chapter; required by §63.322(b)(1).

B. TESTING AND MONITORING

- (1) Same instructions as II.B above.

C. RECORDKEEPING REQUIREMENTS

- (1) Same instructions as II.C above.

D. REPORTING REQUIREMENTS

- (1) Same instructions as II.D above.
- (2) Specific reporting condition for existing refrigerated condenser controlled transfer machines that exceed the area source perchloroethylene usage limit; required by §63.325(e).